

Date: Tuesday, 4/24/2007 3:24:03 PM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: TUBE
Job Number	: 32052		
Estimate Number	: 12171		
P.O. Number	: <i>N/A</i>	Part Number	: D34767
This Issue	: 4/24/2007 S.O. No. : <i>N/A</i>	Drawing Number	: D3476 REV A
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: <i>N/A</i> Type : SMALL /MED FAB	Drawing Revision	: A
Previous Run	: 28590	Material	: <i>N/A</i>
Written By	: _____	Due Date	: 5/8/2007 Qty: 2 Um: Each
Checked & Approved By	: <i>H. Johnston 07.04.25</i>		
Comment	: Est Rev: A New Issue 06-02-03 JLM		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M304S26GA	304/316 0.018 SHEET
-----	-----------	---------------------



Comment: Qty.: 0.1072 sf(s)/Unit Total : 0.2144 sf(s)

Pick:

304/316 0.018 SHEET

(M304S26GA)

Batch: *m102393**mf 07-04-26*

2.0	SHEAR	SHEAR
-----	-------	-------



Comment: SHEAR

Cut Flat pattern as per Dwg D3476

*mf 07-04-26*

3.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
-----	-------------	-------------------------------



Comment: SMALL &amp; MEDIUM FAB RESOURCE 1

1-Debur

2-Roll as per Dwg D3476

3-Form Bead as per Dwg D3476 Using Rotary Machine.

4-Spot Weld as per Dwg D3476 and Dart QSI 018

5-Cut 69 Deg Angle as per Dwg D3476.

*mf 07-04-26*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: RD Date: 07/05/02  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 4/24/2007 3:24:03 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE

Job Number: 32052

Part Number: D34767

Job Number:



Seq. #:

Machine Or Operation:

Description :

4.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

SB 07/04/30 (2)

5.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB 07/04/30 (2)

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: GA

MF 07-04-30 (2)

7.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/05/02

Job Completion



U 8-05-02

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

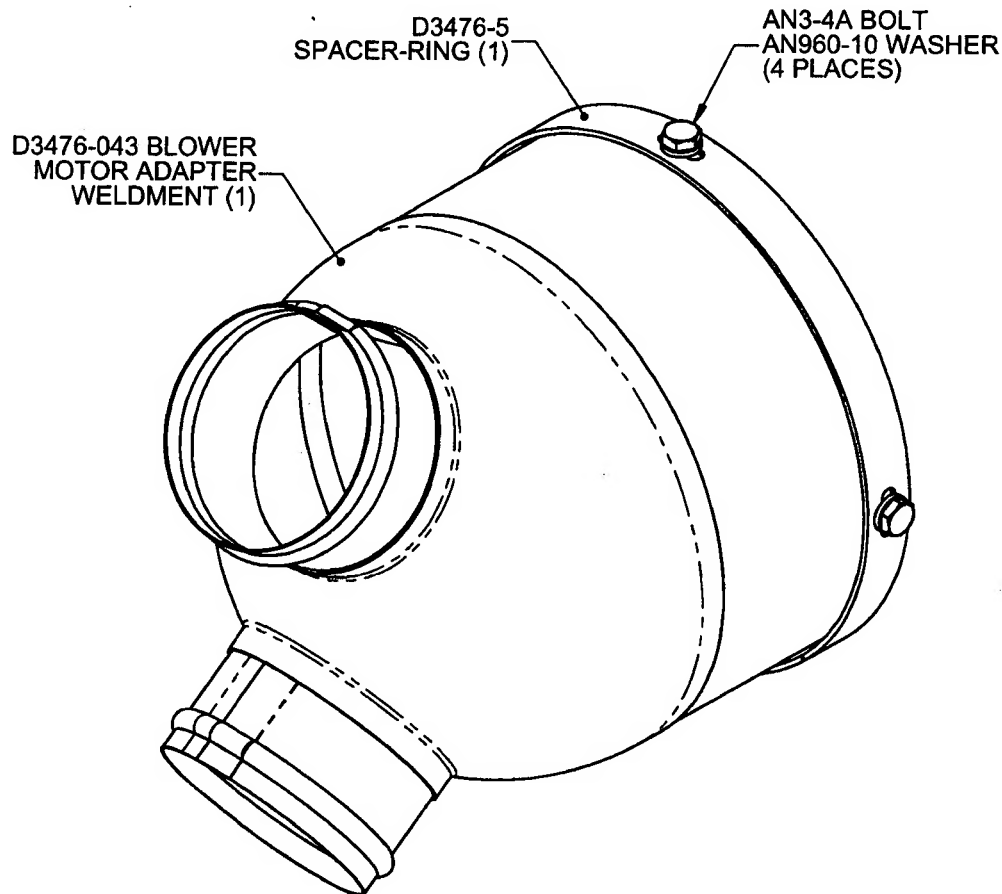
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3476</b>	REV. A SHEET 1 OF 7
DATE <b>06.01.27</b>		TITLE <b>BLOWER MOTOR ADAPTER</b> SCALE 1:2	
A	06.01.27	NEW ISSUE	

*[Signature]* 06.04.03



### **D3476-041 BLOWER MOTOR ADAPTER**

1) IDENTIFY WITH DART P/N D3476-041 USING FINE POINT PERMANENT INK MARKER

QTY -041	P/N	DESCRIPTION
X	D3476-041	BLOWER MOTOR ADAPTER
1	D3476-043	BLOWER MOTOR ADAPTER WELDMENT
1	D3476-5	SPACER-RING
4	AN3-4A	BOLT
4	AN960-10	WASHER

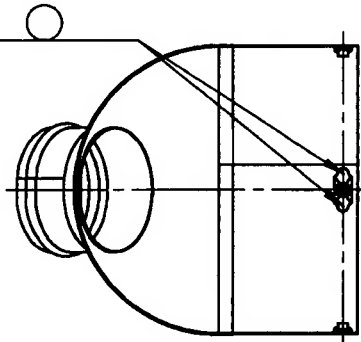
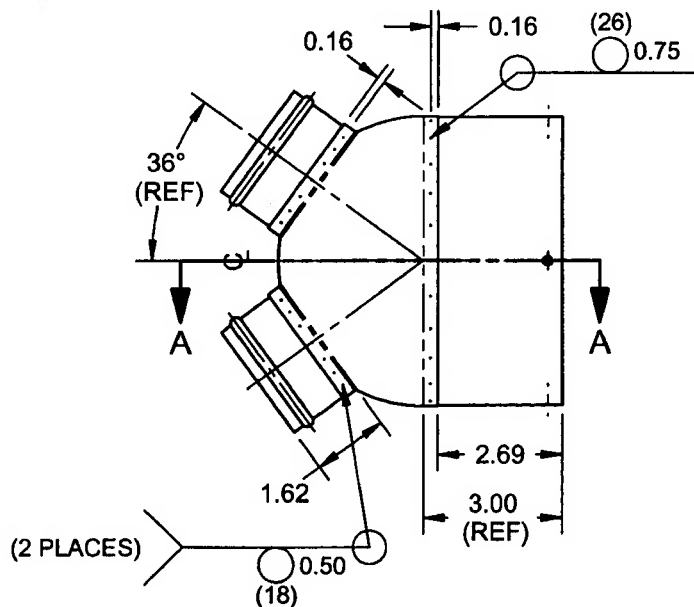
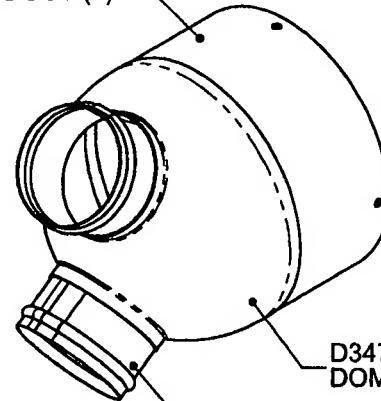
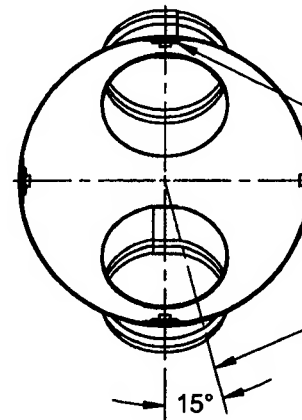
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**DART**

DESIGN B	DRAWN BY B	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. <b>D3476</b>	REV. A SHEET 2 OF 7
DATE <b>06.01.27</b>	TITLE <b>BLOWER MOTOR ADAPTER</b>		SCALE 1:4

LOCATE AND  
SPOT WELD  
NUT PLATES  
(4 PLACES)**SECTION A-A**D3476-1  
DUCT (1)D3476-3  
DOME (1)D3476-7 TUBE  
(2 PLACES)NAS-1031C3W  
NUT PLATES  
(4 PLACES)OFFSET SEAM  
ON DUCTSHOP COPY  
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NO. 32052**D3476-043 BLOWER MOTOR  
ADAPTER WELDMENT****NOTES:**

- 1) SPOT WELD PER DART QSI 004
- 2) FINISH: NONE
- 3) PART IS SYMETRICAL ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -043	P/N	DESCRIPTION
X	D3476-043	BLOWER MOTOR ADAPTER WELDMENT
1	D3476-1	DUCT
1	D3476-3	DOME
2	D3476-7	TUBE
4	NAS1031C3W	NUTPLATE

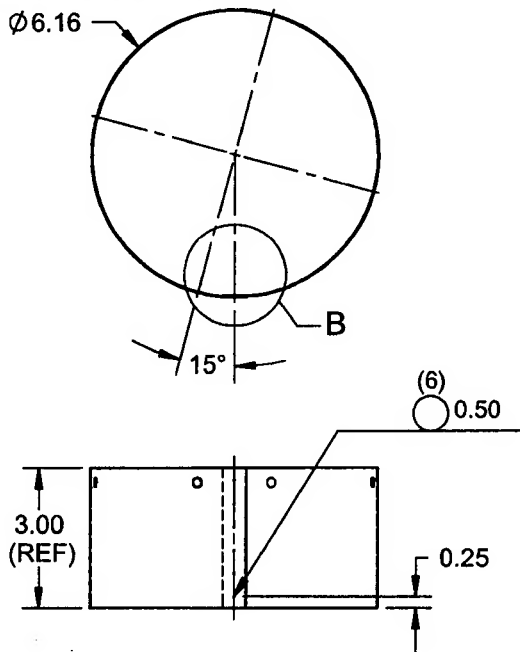
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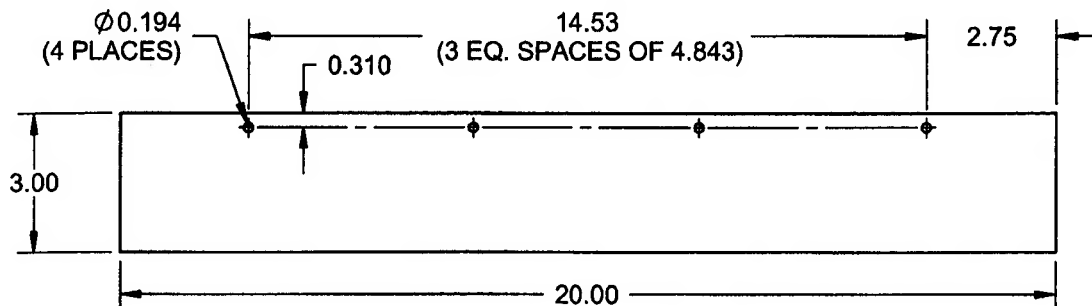
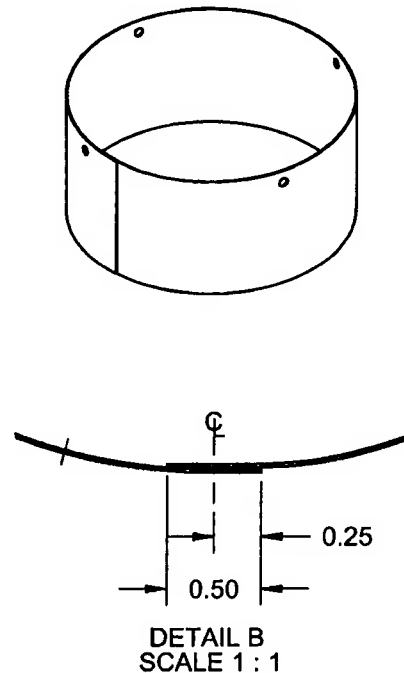


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DATE <b>06.01.27</b>		TITLE <b>BLOWER MOTOR ADAPTER</b>	SCALE 1:4

*[Handwritten]* 06.07.03



**D3476-1 DUCT**



**D3476-1F DUCT FLAT PATTERN**

**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH  
26 GAUGE SS (0.018 THICK)  
(REF. DART SPEC. M304S26GA)
- 2) SPOT WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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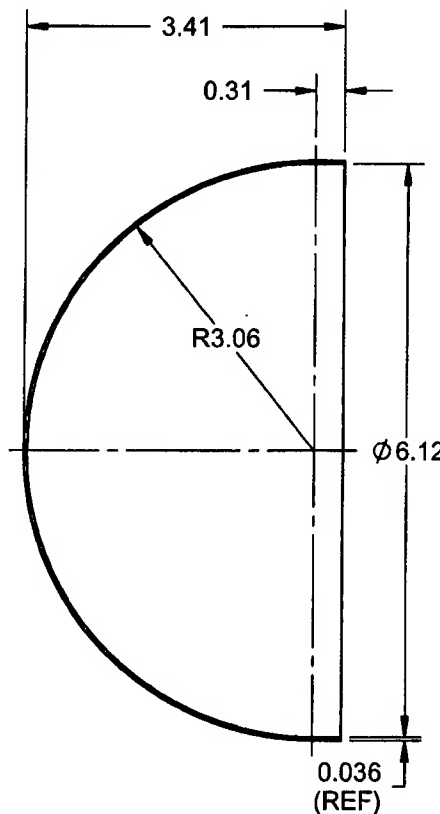
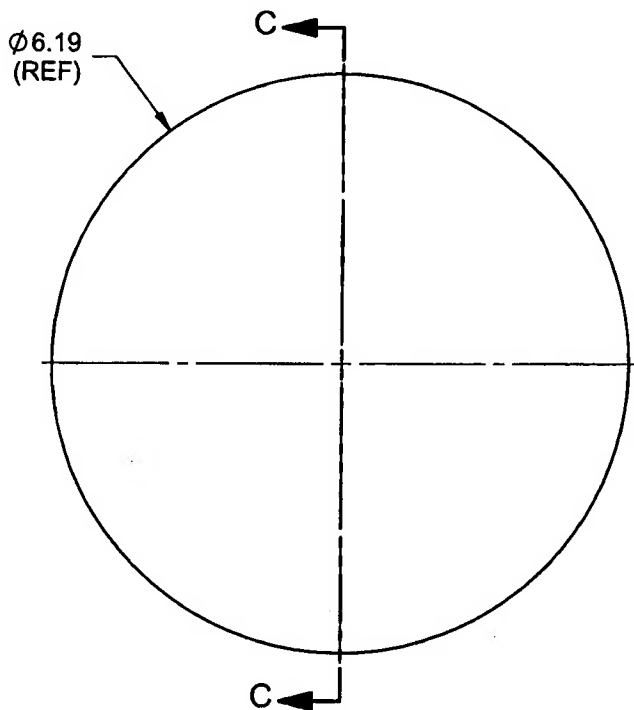
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DATE <b>06.01.27</b>		TITLE <b>BLOWER MOTOR ADAPTER</b>	SCALE 1:2

RELEASED  
06.04.03 *[Signature]*



**SECTION C-C**

**D3476-3S DOME, SPINNING DETAIL**

**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.036 THICK PER MIL-S-5019 (ANNEALED) 2B FINISH (REF. DART SPEC. M304S20GA)
- 2) FORM BY SPINNING TO DIMENSION WITHOUT EXCESS THINNING OF MATERIAL (MINIMUM THICKNESS = 0.025").
- 3) FINISH: NONE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

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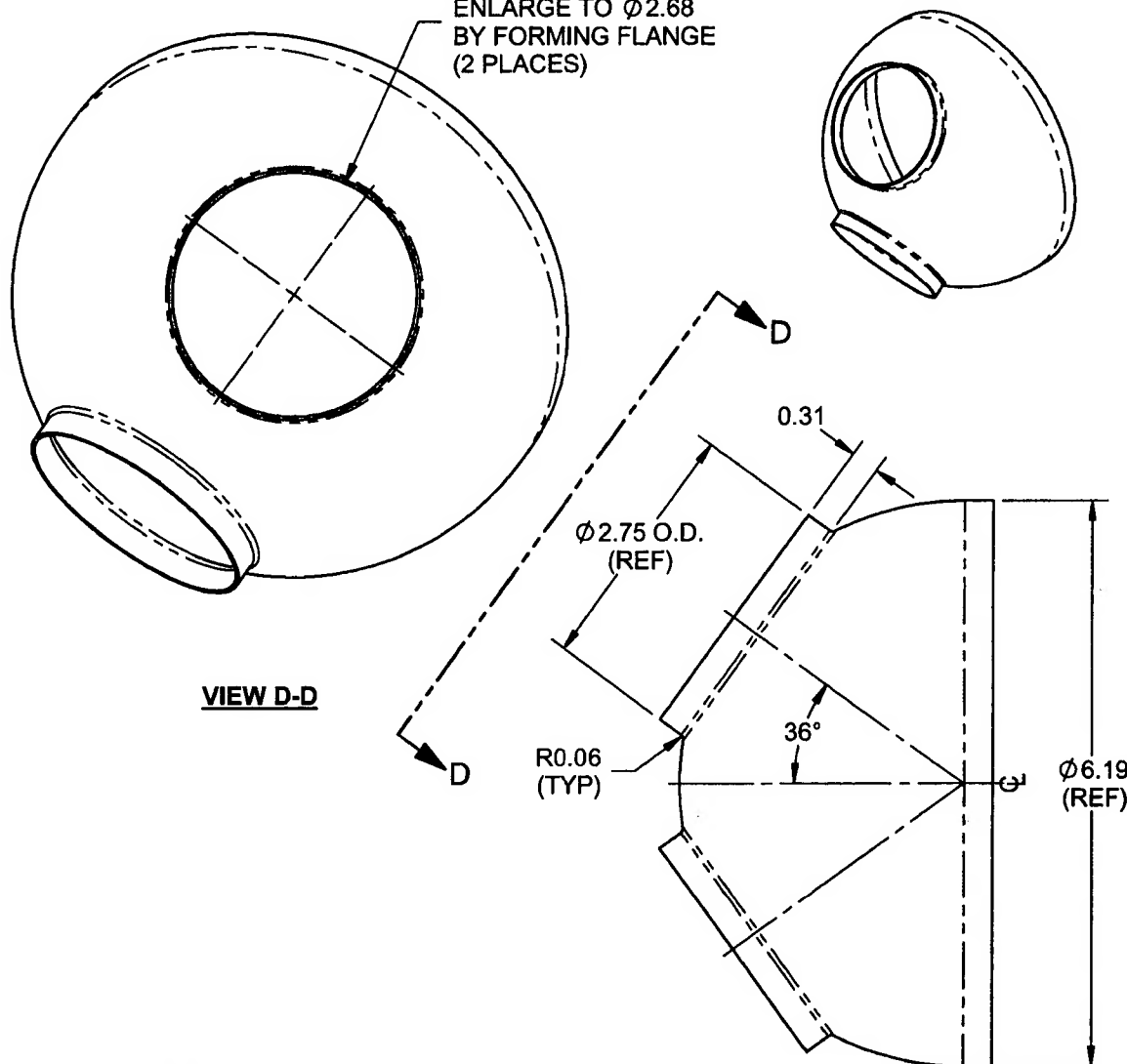


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DATE <b>06.01.27</b>		TITLE <b>BLOWER MOTOR ADAPTER</b>	SCALE 1:2

# 06.04.03

CUT  $\phi 2.25$  HOLE,  
ENLARGE TO  $\phi 2.68$   
BY FORMING FLANGE  
(2 PLACES)

**D3476-3 DOME****NOTES:**

- 1) MATERIAL: MAKE FROM D3476-3S
- 2) FINISH: NONE
- 3) PART IS SYMMETRICAL ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

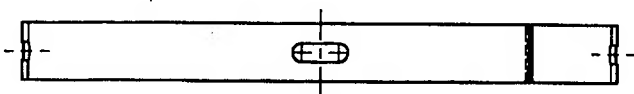
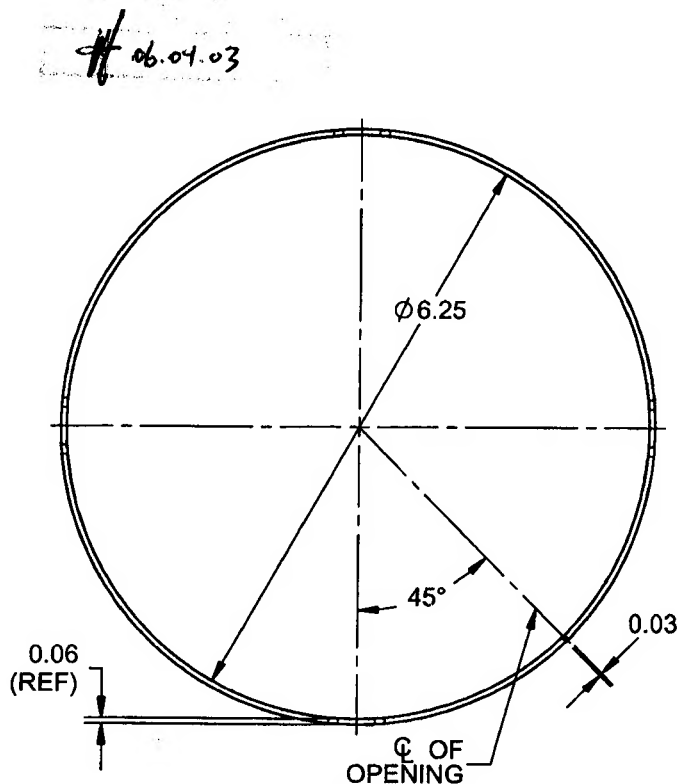
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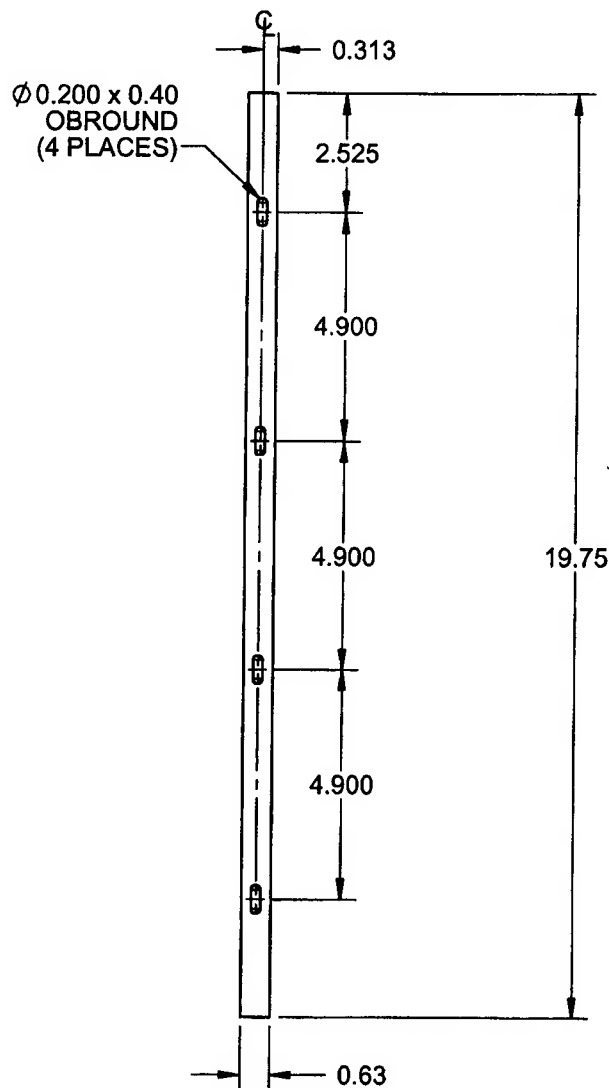
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DATE 06.01.27	TITLE BLOWER MOTOR ADAPTER		SCALE 1:2



**D3476-5 SPACER-RING**



**D3476-5F SPACER-RING  
FLAT PATTERN**

**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.063 THICK, PER MIL-S-5019 (ANNEALED) 2B FINISH (REF. DART SPEC. M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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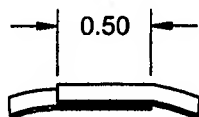
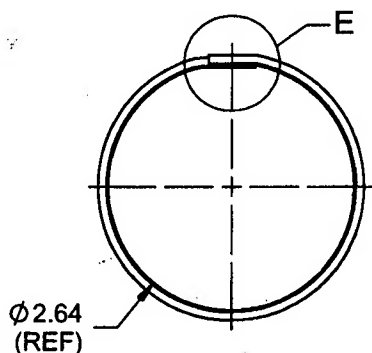
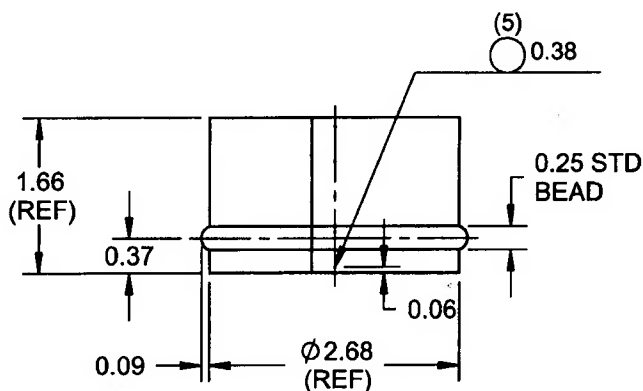
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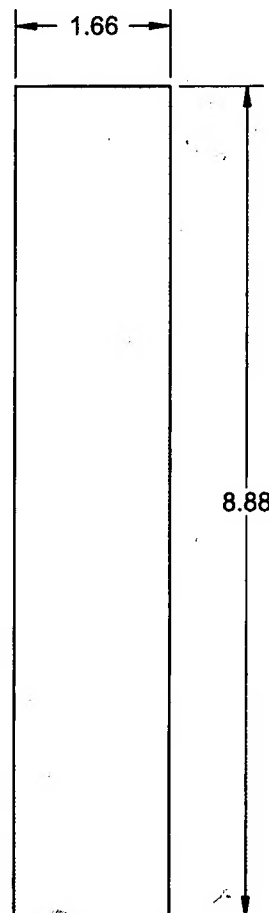
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DATE <b>06.01.27</b>		TITLE <b>BLOWER MOTOR ADAPTER</b>	SCALE 1:2

*[Handwritten]* 06.04.03



DETAIL E  
SCALE 1:1

**D3476-7 TUBE**



**D3476-7 TUBE  
FLAT PATTERN**

**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH  
26 GAUGE SS (0.018 THICK)  
(REF. DART SPEC. M304S26GA)
- 2) SPOT WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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# SPOT WELD TEST RECORD

AMS-W-6858A

CLASS 'C'

TEST NO: 5

EMPLOYEE: Melanie Fautley

PART NUMBER: D 3476-7

JOB NUMBER: 32052

MATERIAL TYPE: 304 SS

MATERIAL THICKNESS: 26G

GROUP SPECIFICATION: 2

Group 1: Aluminum & magnesium

Group 2: Iron; nickel; cobalt

Group 3: Titanium

## TEST RESULTS

PASS FAIL

VISUAL: [ ☒ ] [ ☐ ]

PENETRATION: [ ☒ ] [ ☐ ]

PULL STRENGTH: [ ☒ ] [ ☐ ] PSI Reading: \_\_\_\_\_

The individual named above has been trained and is qualified in accordance with standard AMS-W-6858A, and QSI 004 ( ref: 4.3 )

DATE OF TEST COUPON: 02/04/30

QUALIFIER: SB